IN THE CLAIMS

The claims of the present application are listed below, marked with the changes to be made by the present amendment.

1. (Currently Amended) A method for visualization of data knowledge on a computer, comprising the steps of:

performing data mining of data to generate rules;

representing said rules as objects in a three-dimensional space, said rules being displayed in at

least one group, said group having an arrangement with positions of greater

prominence and positions of less prominence, said rules being displayed in said at least

one group with a strength of said rule corresponding to said prominence of said

position in said at least one group, with a rule of said rules having a highest strength

being represented in a most prominent position in said at least one group;

displaying said three-dimensional space on a graphical user interface; and

permitting using navigation and zooming in said three-dimensional space using a computer

input apparatus.

2. (Currently Amended) A method as claimed in claim 1, wherein said step of representing represents all rules generated during said data mining as objects in the three-dimensional space, said objects in three-dimensional space being separated into a plurality of groups, said groups being shown separated from one another.

3. (Original) A method as claimed in claim 1, wherein said step of representing represents less than all rules generated during said data mining.

4. (Previously Presented) A method as claimed in claim 1, wherein said rules are represented as spheres in the three-dimensional space on the graphical user interface, and said spheres of said at least one group are displayed in spiral arrangement.

5.(Original) A method as claimed in claim 4, wherein said spheres have a size representing a relative number of examples covered by the corresponding rule.

6.(Original) A method as claimed in claim 1, further comprising the step:
displaying information on a rule upon selection of a three-dimensional object corresponding to the rule.

7. (Original) A method as claimed in claim 6, wherein said displaying step displays an index of the corresponding rule.

8. (Currently Amended) A method for cleansing noise from data, comprising the steps of:
generating objects for display representing rules obtained by data mining in a database;
grouping the objects according to rule class, said grouping presenting the objects as a plurality of visually separate groups;
positioning objects within a group according to rule strength, the objects having a greater rule strength being positioned in a more prominent position within a group and the objects having a lesser rule strength being positioned in a less prominent position within said group; and
filtering out rules of lesser strength from said display of objects, including the sub-steps of:
acquisition of a concept by a concept learner;
evaluation of learned class descriptions and detection of concept components;
optimization of class descriptions according to predetermined criteria of class description evaluation; and
formulation of a filter for modified concept descriptions and filtration of training data.

9. (Original) A method as claimed in claim 8; further comprising the steps of:
applying a closed loop learning approach;

running a learning program at least two times including a first run to acquire model

descriptions and a second run to acquire detailed descriptions; and

using filtered training data on said second run.

10. (Previously Presented) A method as claimed in claim 1, wherein said computer input apparatus is a computer keyboard and mouse-like apparatus.

11. (Currently Amended) A method as claimed in claim 1, wherein said at least one group has a center and outliers, said rule having a highest strength is displayed at said [[a]] center of said at least one group.

12. (Previously Presented) A method as claimed in claim 1, wherein said rules of said at least one group are displayed as a spiral arrangement of spheres, said rules of lesser strength being displayed at outer portions of said spiral arrangement.

13. (Previously Presented) A method as claimed in claim 1, wherein said at least one group is a plurality of groups, each of said plurality of groups being represented as classes of rules.

14. (Previously Presented) A method as claimed in claim 1, further comprising the step of:
upon selection of one of said objects corresponding to a rule, displaying raw data covered by

the rule.

15. (Previously Presented) A method as claimed in claim 14, wherein said displaying step displays the raw data as a projection on a graph.

16. (Previously Presented) A method as claimed in claim 1, further comprising the steps of:

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selectively displaying walls of the three-dimensional space; and

selectively displaying a floor of the three-dimensional space.

17. (Previously Presented) A method as claimed in claim 1, wherein said rules are generated by an inferencing engine.

18. (Currently Amended) A software program operable on a computer to carry out a method for visualization of data knowledge on a computer, comprising the steps of:

performing data mining of data to generate rules;

representing said rules as objects in a three-dimensional space, said rules being displayed in at least one group, said group having an arrangement with positions of greater prominence and positions of less prominence, said rules being displayed in said at least one group with a strength of said rule corresponding to said prominence of said position in said at least one group, with a rule of said rules having a highest strength being represented in a most prominent position in said at least one group;

displaying said three-dimensional space on a graphical user interface; and

permitting using navigation and zooming in said three-dimensional space using a computer input apparatus.